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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,470	10/22/2003	Don Kennard	NOBELB.063DV1	5956

20995 7590 11/16/2006

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EXAMINER

BUMGARNER, MELBA N

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,470

Applicant(s)

KENNARD, DON

Examiner

Melba Bumgarner

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/22/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 44 is objected to because of the following informalities: Sentence should begin with capital letter. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 40-44, 46 and 48 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Recitation of “the neck portion” lacks sufficient antecedent basis in claim 40. Claim 46 claims an open-ended dimension within a range making it unclear what diameter is claimed. In claim 48, it is unclear which dimension of the body is limited.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 39, 45, 48, 53, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Christensen (3,466,748). Christensen discloses a dental implant elongated along an implant axis comprising an abutment, a neck segment, a body segment having threads extending helically about the implant axis, the thread diameter tapering non-linearly from a maximum adjacent the neck segment to a minimum at a distal end (figure 1). As understood, the body segment is

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approximately equal to the thickness of the cortical layer (figure 3). A thread diameter is 3.175 mm. A thread depth tapering from a maximum thread depth adjacent the neck segment to a minimum thread depth adjacent the distal end. Material of the implant is alloy of titanium (column 3 line 55).

6. Claims 39, 40, 47-52, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Hahn et al. (5,795,160). Hahn et al. disclose a dental implant elongated along an implant axis comprising an abutment, a neck segment, a body segment having threads extending helically about the implant axis, the thread diameter tapering non-linearly from a maximum adjacent the neck segment to a minimum at a distal end (figure 1). The threaded body segment comprises an upper flared section proximal to the neck portion, an intermediate section and a tapered lower section, the lower section having a smaller angle of taper as compared to the upper section. As understood, the body segment is approximately equal to the thickness of the cortical layer (figure 3). The body segment is at least about 12 mm in length. The neck segment and abutment has a length of greater than about 5 mm. The total length along the implant axis is 20 mm. A thread depth tapering from a maximum thread depth adjacent the neck segment to a minimum thread depth adjacent the distal end. Material of the implant is titanium (column 3 line 41).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al. Hahn et al. disclose a dental implant that shows the limitations as described above; however, they do not show the specific range of taper angle. It would have an obvious matter of choice to one of ordinary skill in the art at the time the invention was made as to the range of taper angle of the threads and the neck segment narrower than the abutment.

9. Claims 46 and 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christensen. Christensen discloses a dental implant that shows the limitations as described above; however, Christensen does not show the thread diameter is less than about 3.0 mm. It would have an obvious matter of choice to one of ordinary skill in the art to have a diameter of about 3.0 mm instead of 3.175 mm. It would have been an obvious matter of choice as to the specific depth and pitch of the body segment. It would have been an obvious matter of choice as to the location of plurality of flat facets in that Christensen shows facets on abutment to provide gripping surface for rotative installation of the implant.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Vrespa (5,259,398) is cited to show the state of the art with respect to a dental implant.

11. Any inquiry concerning this communication from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached at 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melba Bumgarner
Primary Examiner